

【CLAIMS】

【Claim 1】

A buckling strength reinforced shipping container, comprising:

an upper rail frame and a lower rail frame, each having a rectangular frame shape, respectively mounted in an upper part and a lower part of the container, and a plurality of corner posts to withstand vertical load by vertically connecting four corners of the upper rail frame to those of the lower rail frame, thereby forming a framework of the container;

a roof panel and a floor panel forming a ceiling and a bottom wall of the container, side panels forming sidewalls, and a front panel and a rear panel forming a front wall and a rear wall of the container, all of which are formed with uneven surfaces and combined in and between the upper rail frame and the lower rail frame; and

buckling strength reinforcing frames each provided in an X-shaped arrangement on each of the front panel and the rear panel, each terminal end of which is positioned in the corner portions, at which the corner posts and the upper and lower rail frames are connected together, thereby withstanding torsional load and angular load.

【Claim 2】

The container as set forth in claim 1, wherein the buckling strength reinforcing frames are mounted by welding to the corner posts and the upper and lower rail frames respectively, with both of which the terminal ends of the buckling strength reinforcing frames are in contact.

【Claim 3】

The container as set forth in claim 1, wherein either of the front panel or the rear panel is formed with a double door-type side opening/closing door, and the buckling strength reinforcing frame provided on the panel forming the door is provided with a separated shape and mounted by welding to the panel, so as to avoid positional interference between the door and the reinforcing frame when the door is opened and closed.

【Claim 4】

A buckling strength reinforced shipping container, comprising:
an upper rail frame and a lower rail frame having rectangular frames shape respectively mounted in an upper part and a lower part of the container, and corner posts to withstand vertical load by vertically connecting four corners of the upper rail frame to those of the lower rail frame together, thereby forming a framework of the container,
a roof panel and a floor panel forming a ceiling and a bottom wall, side panels forming sidewalls, and a front panel and a rear panel forming a front wall and a rear wall, all of which are formed with uneven surfaces and combined in and between the upper rail frame and the lower rail frame;
left and right doors provided in either of the front panel or the rear panel, one side of each of which is coupled by a hinge to the corner posts;
buckling strength reinforcing frames each provided in an X-shaped arrangement on each of the front panel and the rear panel, each terminal end of which is positioned in corner portions, at which the corner posts and the upper and lower rail frames are connected together, thereby withstanding torsional load and angular load, wherein the buckling strength reinforcing frame on the door is partitioned into left and right frames provided on the left and right doors based on an intersecting point of the left and right frames; and

fastening means provided at the intersecting point of the left and right frames to selectively form a continuous structure using an engagement structure.

【Claim 5】

The container as set forth in claim 4, wherein the fastening means comprises:

an engaging hole having a depressed triangular shape, formed in one of the left and right frames based on the intersecting point of the buckling strength reinforcing frame provided on the door; and

an engaging device provided in a remaining one of the left and right frames at a position facing the engaging hole, including an actuating bolt rotatably installed within a housing which is open toward the engaging hole, a manipulation lever coupled in worm and worm gear engagement with a first end of the actuating bolt, and an engaging part coupled by a screw with a second end of the actuating bolt and rectilinearly moving within the housing when the actuating bolt rotates, whereby a leading edge of the engaging part advances and comes into engagement with the engaging hole.

【Claim 6】

The container as set forth in claim 4, wherein the left and the right frames provided on the door are positioned on inner surfaces of the left and the right doors and mounted thereto through welding, and terminal ends thereof engage at intervals with the corner portions, at which the corner posts and the upper and lower rail frames are connected together.